LAB ASSIGNMENT

Concept: Classes and Objects

Objective: At the end of assignments, participants will able to implement Classes and Objects.

Problems:

Q1: WAP to input rollno, name and marks in five subjects and calculate the total and average marks. Define different functions to input, calculate and display the data.

Q2: WAP to declare a class with the following specification

Class name	Employee	

(Data members) Private:

empCode	integer	
empName	String	
basicSalary	float	
hra	float	40% of basic salary
da	float	20% of basic salary
ta	float	10% of basic salary
Gross salary	float	basicSalary + hra + da + ta
tax	float	20 % of gross salary
Pf	float	10% of gross salary
netSalary	float	gross salary – (tax + pf)

(Member functions) Public:

void input( )	- function to input the values for ecode, ename and basic salary
void calculate( )	- function to calculate all other values
void display( )	- function to display the all the values.

Now perform the following operations:

(1) Take an object of the given class, input, calculate and display values for one employee.

Q3: WAP to declare a class with the following specification

class name	TaxPayer	

Data members(private)

int	panNumber
String	name
float	income
float	tax

Member functions

input( )	to input the data
display( )	to display the data
calculateTax( )	to calculate the tax.

Tax is calculated according to the following rates:

Income	tax
< = 100000	0%
100001 to 200000	10%
200001 to 500000	15%
>500000	20%

WAP to declare the object of the above class, input the data, calculate the tax and display the data.

Q4: Declare a class student with the following specification

Class name   Student

Data members(private)

int rollNo	-roll number
String name	- name
float marks[5]	- marks in 5 subjects
float total	-total marks
float average	-average marks
String grade	- grade according to the average marks

Member functions(public)

void input( )	- to input the data
void calcGrade( )	- to calculate total, average and grade
void dispData( )	-to display the data.

Grades are calculated according to following:-

Average	Grade
>=75	A
60-74	B
40-59	C
<40	fail

Now perform the following operations:

(1) Take an object of the given class, input, calculate and display values for one student.